



NEPTUNE AND COMPANY, INC.

1435 Garrison St.

Suite 110

Lakewood, CO 80215

720-746-1803

[www.neptuneandco.com](http://www.neptuneandco.com)

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## MEMORANDUM

To: Kurt Fehling

From: Rebecca Shircliff and Paul Black

Date: July 3, 2014

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Subject: Review of laboratory data for PCB and organochlorine pesticide analysis.

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A Stage 2B review was performed on PCB and organochlorine pesticide data from BC Laboratories. The deficiencies found for the data are summarized below. In general, these data appear to be usable and valid based on the QC provided; however, it is highly recommended that the laboratory provide the missing information identified below (e.g., calibration, calibration checks, run log, matrix spike source and internal standard information) for a complete evaluation of the quality of the data. In addition, some documentation is needed to explain the 1-month gap between data collection and relinquishment from the Frontier Analytical Laboratories.

## **Summary of Deficiencies Found in the Data Review:**

### **1. For PCBs:**

- Chain-of-Custody (COC) documentation is missing from 5/10/14 to 6/12/14.
- Coolers for sample storage were above 6°C at 7.4 and 7.5°C
- The lab report does not provide any information (e.g., method followed, prep bench sheet) about sample preparation, other than the date.
- Dilution factors are not listed on the lab report; however, the lab does use a code to indicate the sample was diluted.
- Calibration information (e.g., calibration curve, initial and continuing calibration checks) was not included with the lab report. Additionally, a run log was not included.
- The samples that had high detects for PCBs (samples 8489-002-SA LL2, 8489-013-SA, and 8490-006-SA WW2) had 0% surrogate recovery. The lab noted this was due to dilution of the samples, which diluted out the surrogate.
- The lab indicates that sample “N” was used as the source for the matrix spike, but it is not clear what sample this is. The sample name does not relate to any of the client IDs used.
- Internal standard information was not provided.
- Raw data was not provided with the lab report.

### **2. For Organochlorine Pesticides:**

- COC documentation is missing from 5/10/14 to 6/12/14.
- Coolers for sample storage were above 6°C at 7.4 and 7.5°C
- The lab report does not provide any information (e.g., method followed, prep bench sheet) about sample preparation, other than the date.
- Dilution factors are not listed on the lab report; however, the lab does use a code to indicate the sample was diluted.
- Holding times were not met for any of the samples; the lab properly qualified these samples indicating the holding time was missed.
- Calibration information (e.g., calibration curve, initial and continuing calibration checks) was not included with the lab report. Additionally, a run log was not included.
- The lab indicates that sample “N” was used as the source for the matrix spike, but it is not clear what sample this is. The sample name does not relate to any of the client IDs used.
- Raw data was not provided with the lab report.